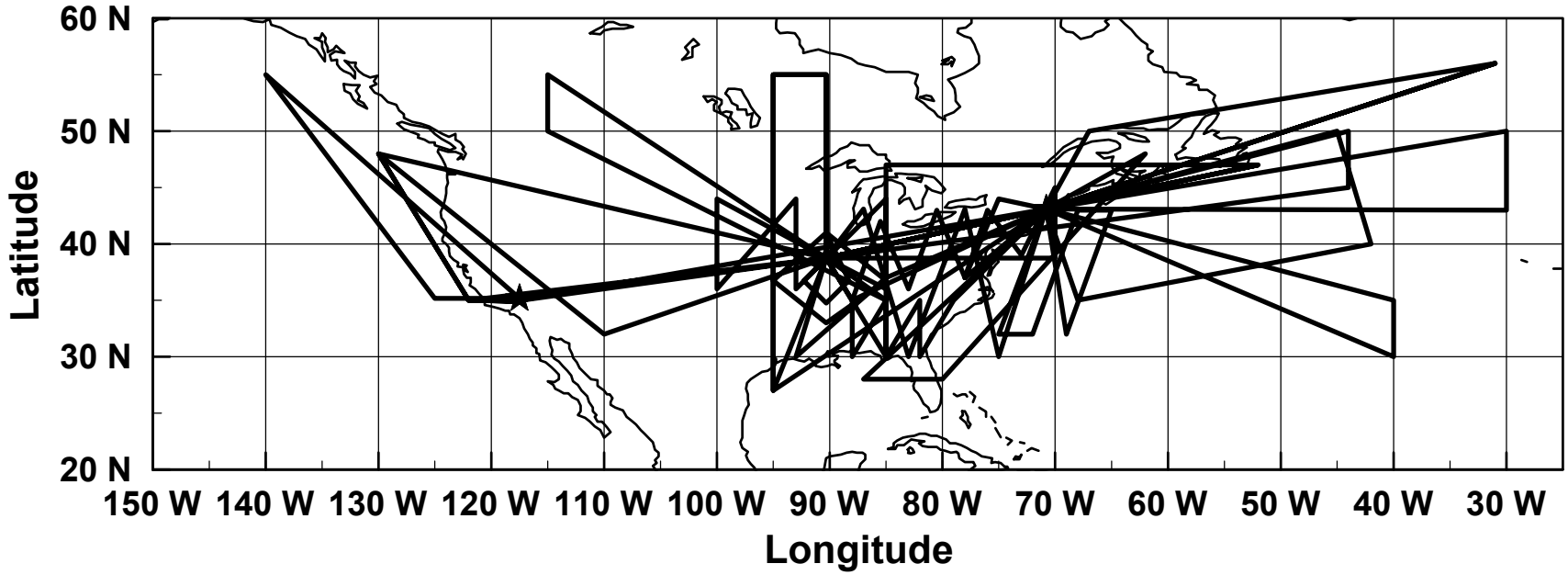
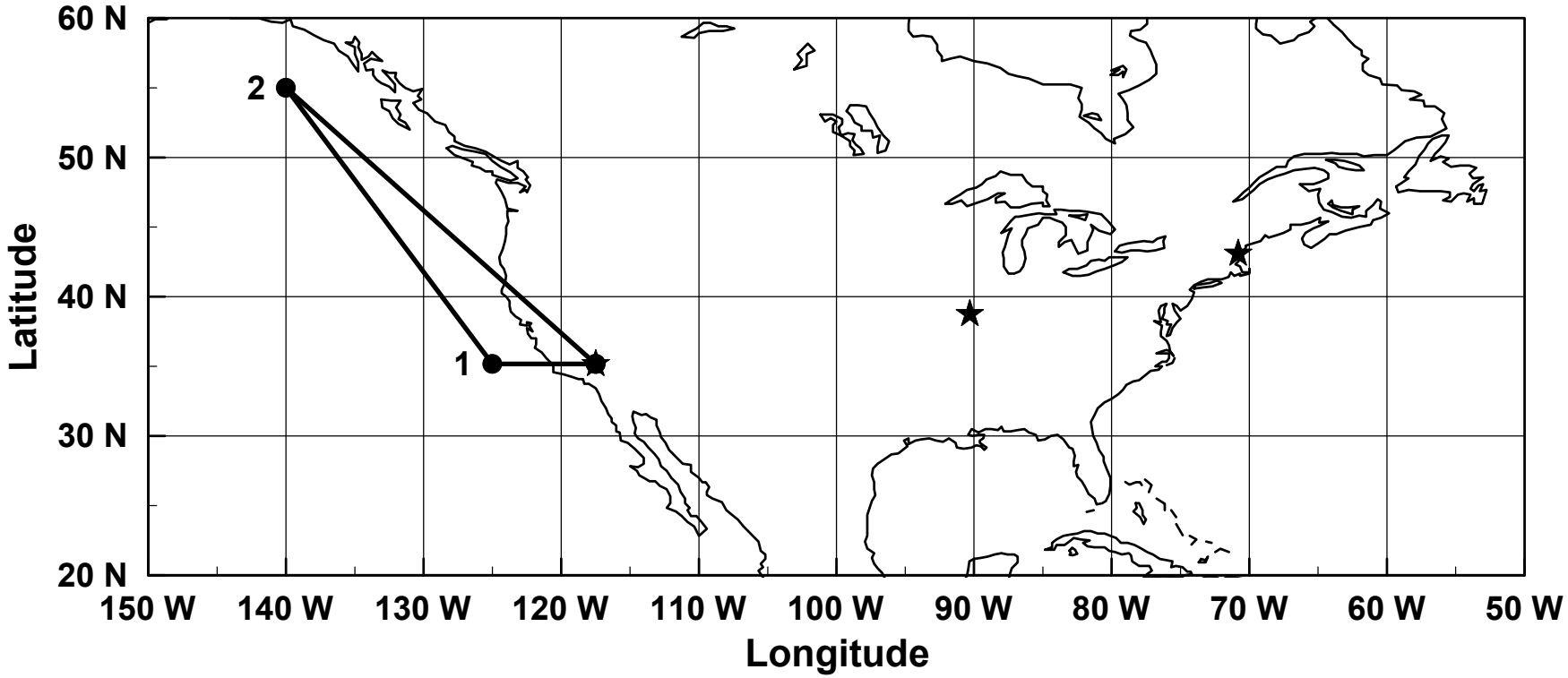
Strawman Flights for INTEX-NA (Updated 22 December, 2003)

-These flight tracks are primarily intended to show areas of interest and the range of expected flight coverage. Actual flight plans and objectives for any particular day will be dictated by conditions.
-The DC-8 will span an altitude range of 1000-39,000 ft.
-Ascent/descent rates will normally be 1500 fpm.
-A composite flight map (18 flights) is shown below. Each flight is addressed separately in this document following the most recently updated deployment schedule.
-Only ground tracks are shown, although extensive vertical profiling will be conducted along these tracks.
-Ground tracks represent the approximate distance covered during a flight of 9 hrs.
-Intercomparison with other research aircraft and satellite under-flights will be executed as conditions allow.



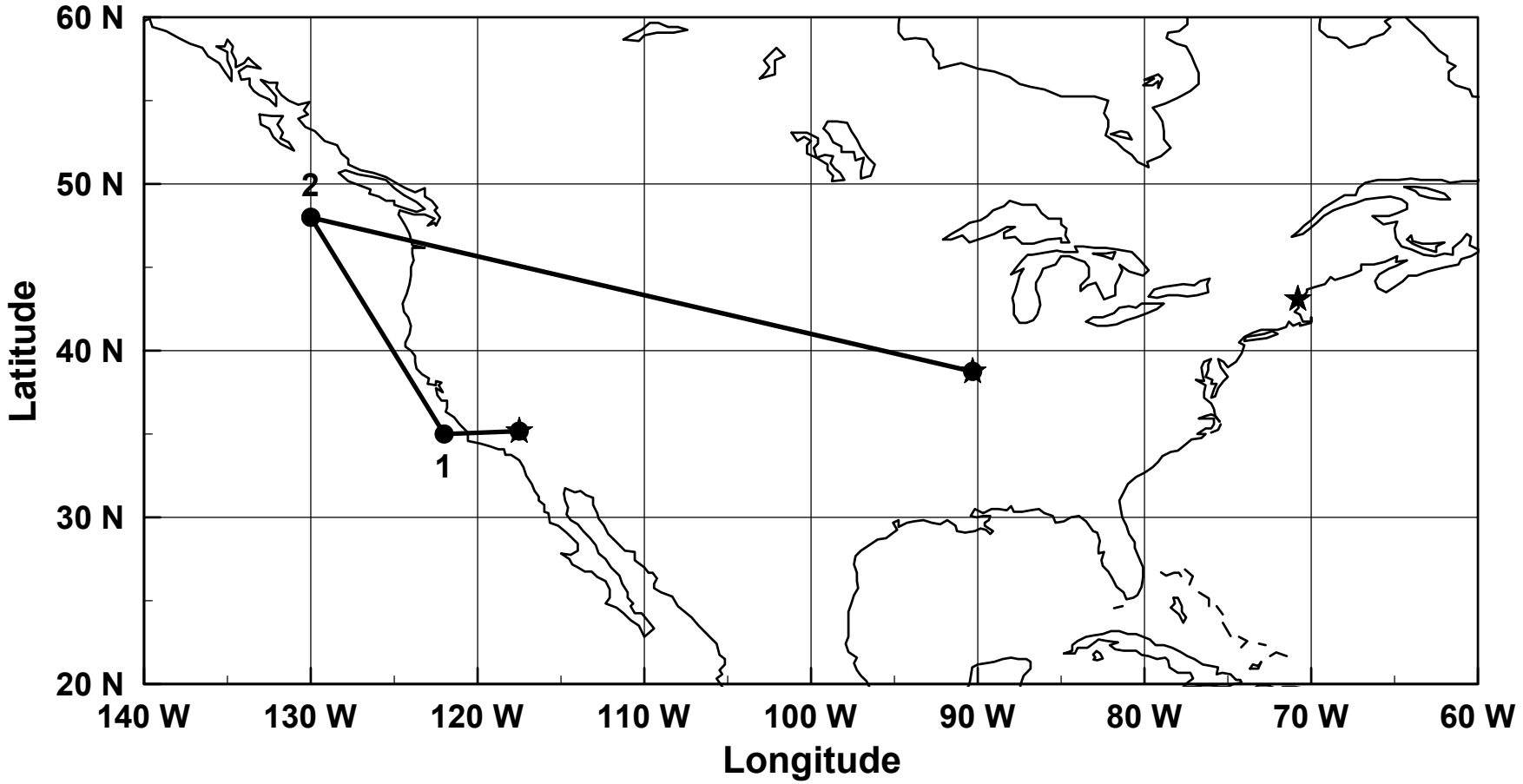
Flight 1:
DC-8, West Coast Survey: Sample N. American inflow

Relevant to (2) Transcontinental characterization and (7) N. American Inflow
Possible contribution to (8) Satellite under-flight



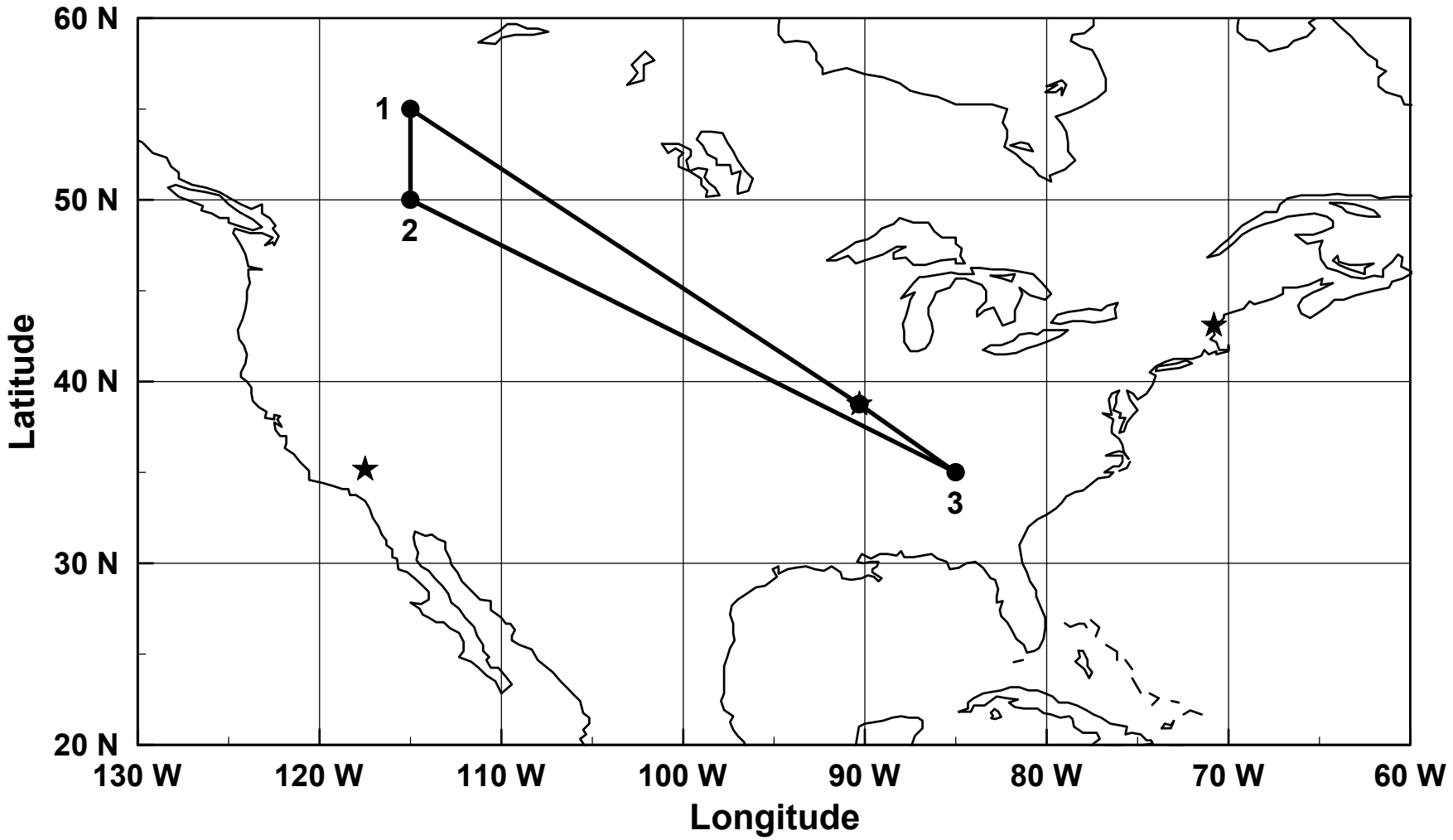
Flight 2:
Dryden-St. Louis Transit: Transit with west-coast leg sampling N. American inflow

Relevant to (2) Transcontinental characterization
Possible contribution to (6) Convective influence and (8) Satellite under-flight



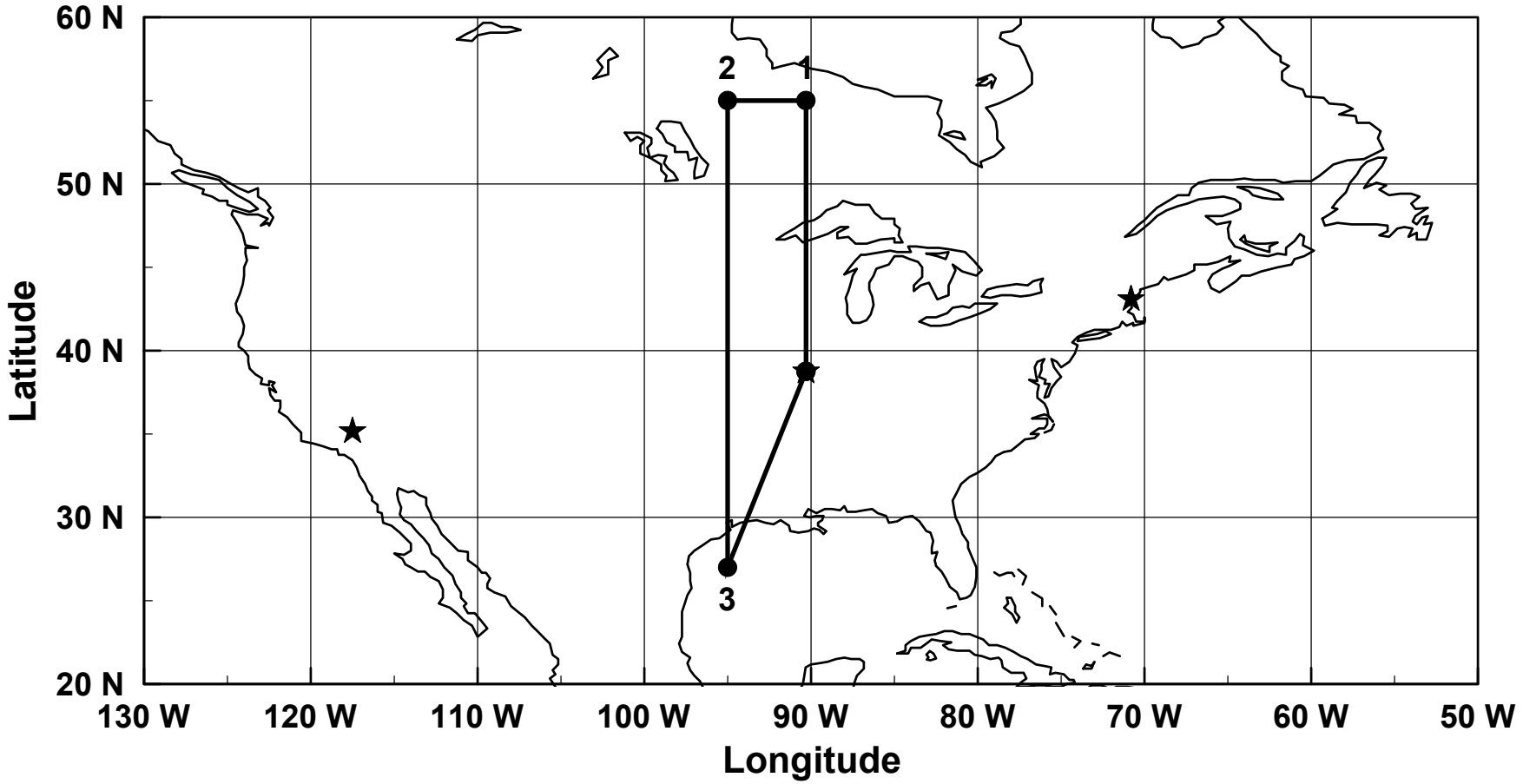
Flight 3:
Canadian Fires: Sample close to fires and along transport path

Relevant to (2) Transcontinental characterization and (3) BL characterization and venting
Possible contribution to (6) Convective influence and (8) Satellite under-flight



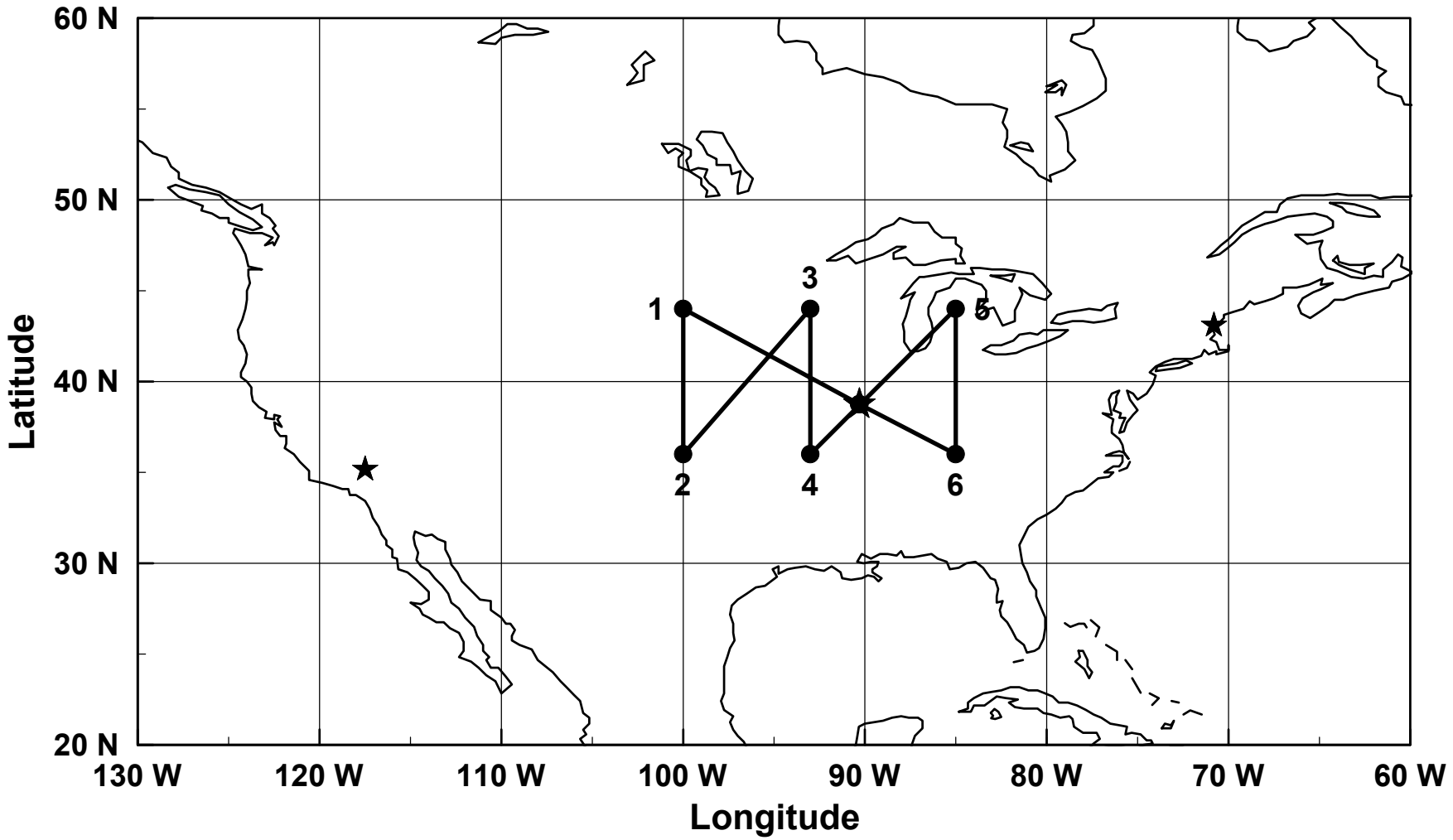
Flight 4:
Mid-Continental Survey: Sample latitudinal and longitudinal gradients. Possible sampling of outflow from deep convection.

Relevant to (2) Transcontinental characterization and (3) BL characterization and venting
Possible contribution to (6) Convective influence and (8) Satellite under-flight



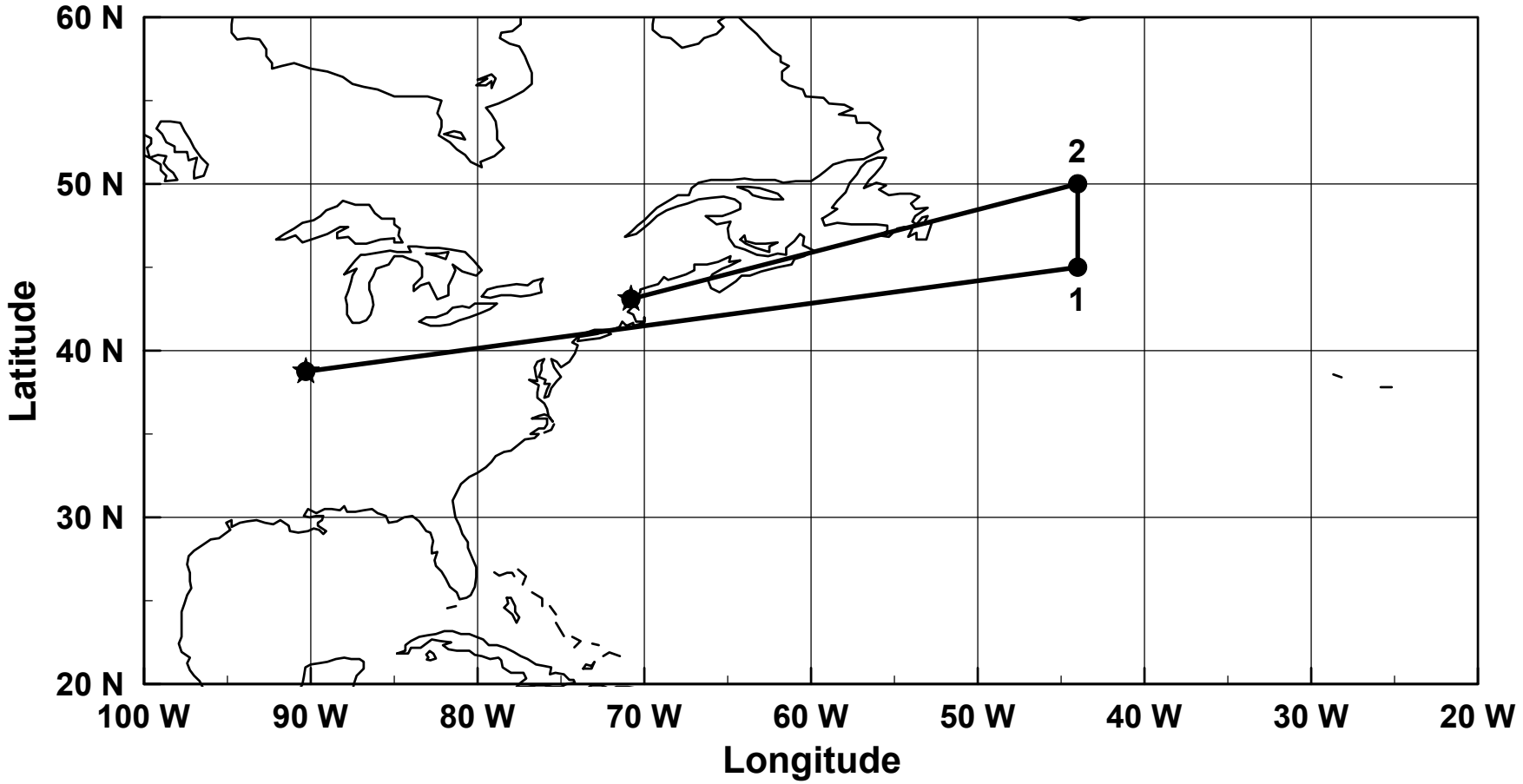
Flight 5:
Midwest Survey: Sample gradients throughout the Midwest source region.

Relevant to (2) Transcontinental characterization and (3) BL characterization and venting
Possible contribution to (6) Convective influence and (8) Satellite under-flight



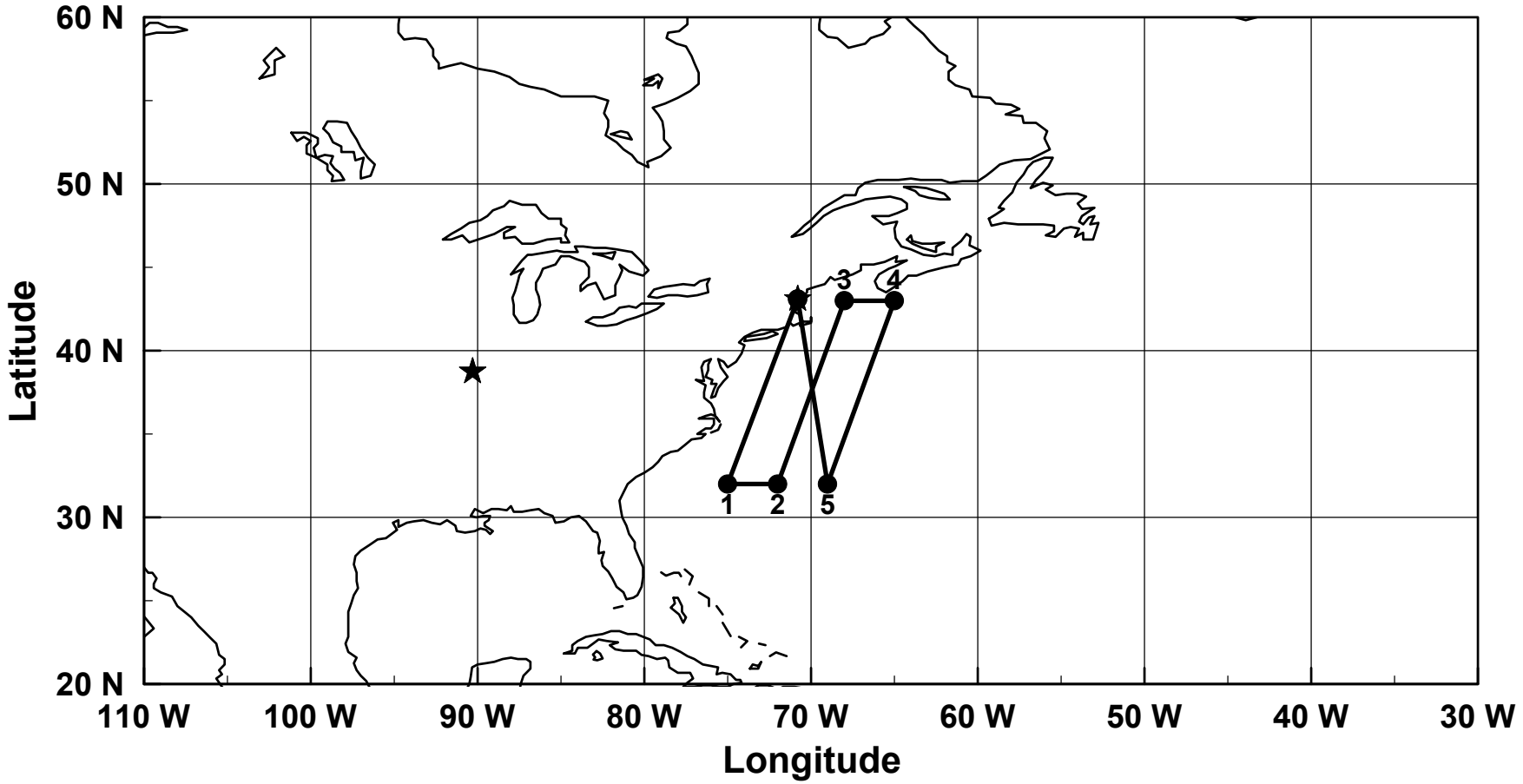
Flight 6:
Transit St. Louis to Pease: Sample large scale gradient from Midwest to N. Atlantic.

Relevant to (2) Transcontinental characterization and (4) N. American outflow
Possible contribution to (5) Aging of outflow, (6) Convective influence and (8) Satellite under-flight



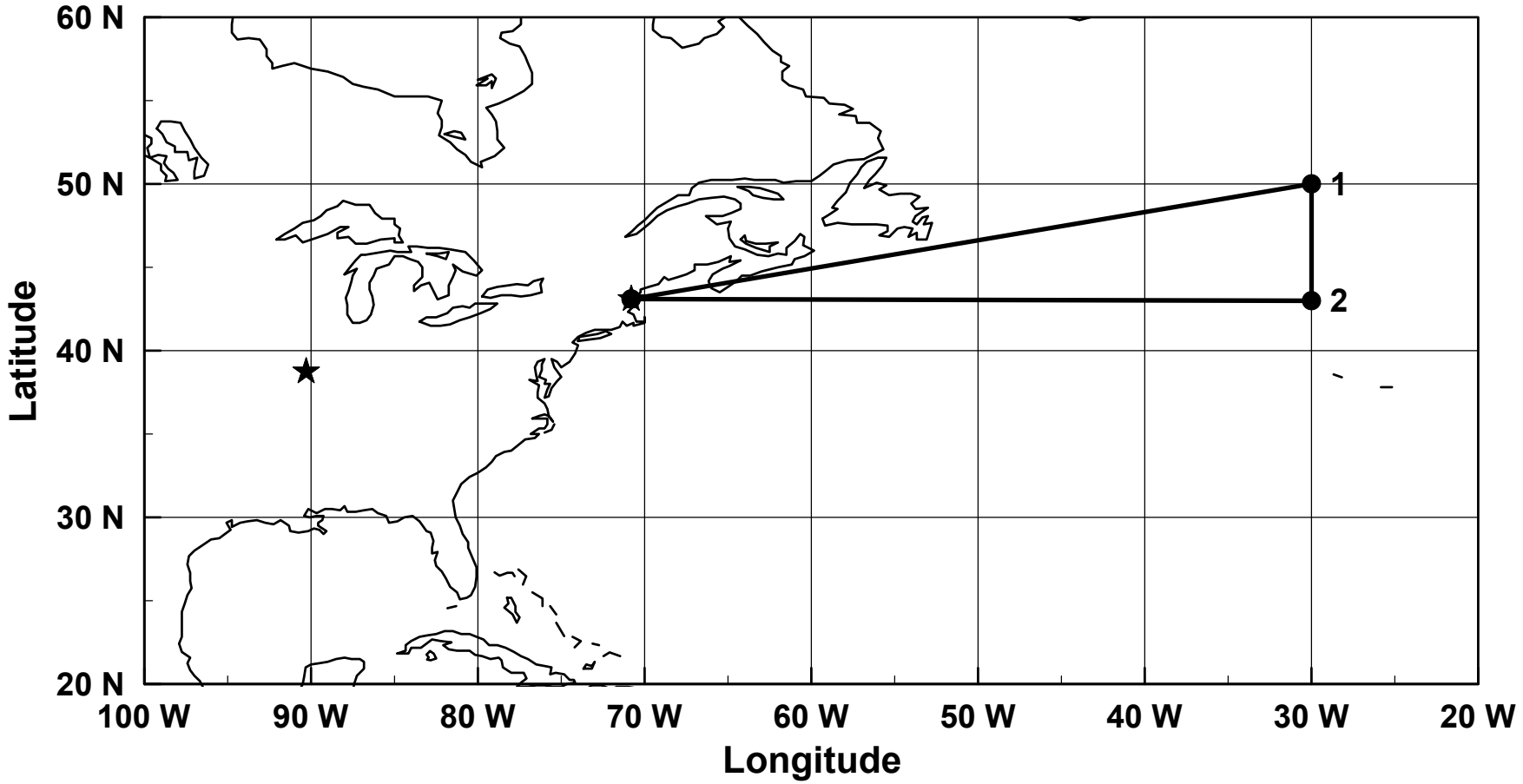
Flight 7:
Atlantic Outflow Survey: Sample outflow to the Atlantic across various latitudes and distances.

Relevant to (4) N. American outflow and (5) Aging of outflow
Possible contribution to (1) Intercomparison and (8) Satellite under-flight



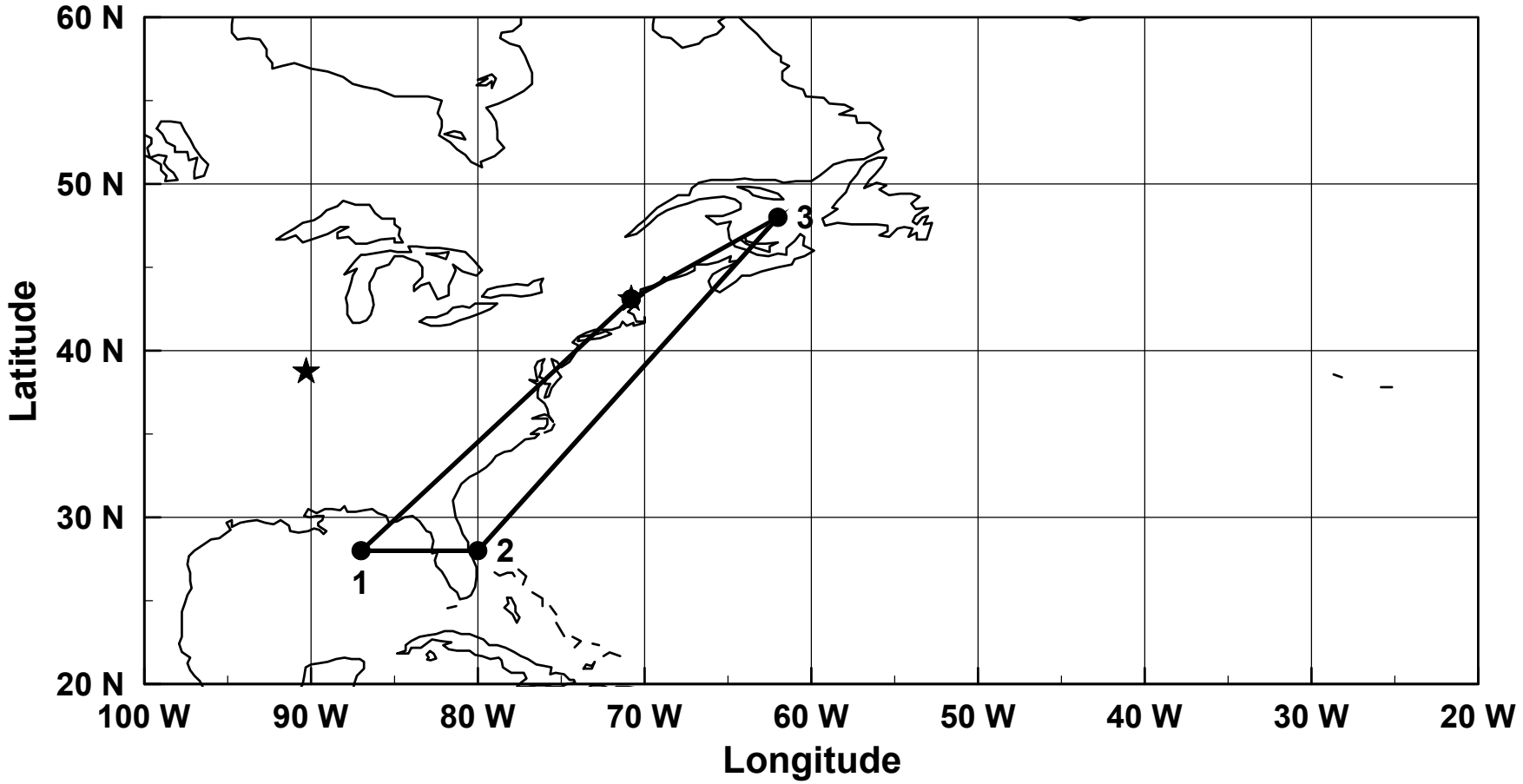
Flight 8:
N. Atlantic Outflow: Sample outflow to N. Atlantic over a range of distances.

Relevant to (4) N. American outflow and (5) Aging of outflow
Possible contribution to (1) Intercomparison and (8) Satellite under-flight



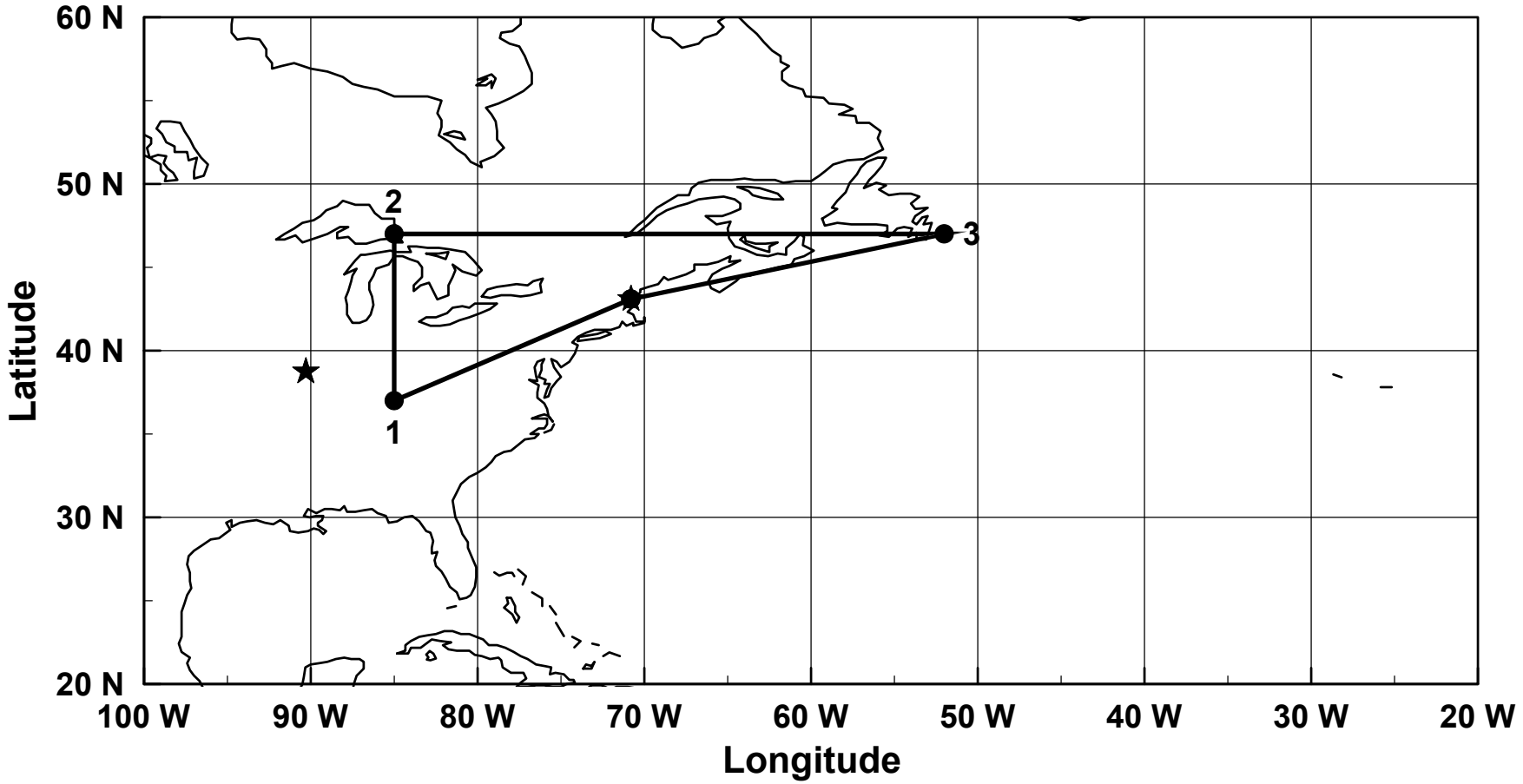
Flight 9:
East Coast Survey: Sample coastal sources and near-field outflow to Atlantic.

Relevant to (2) Transcontinental characterization, (3) BL characterization and venting, and (4) N. American outflow
Possible contribution to (1) Intercomparison, (6) Convective influence, and (8) Satellite under-flight



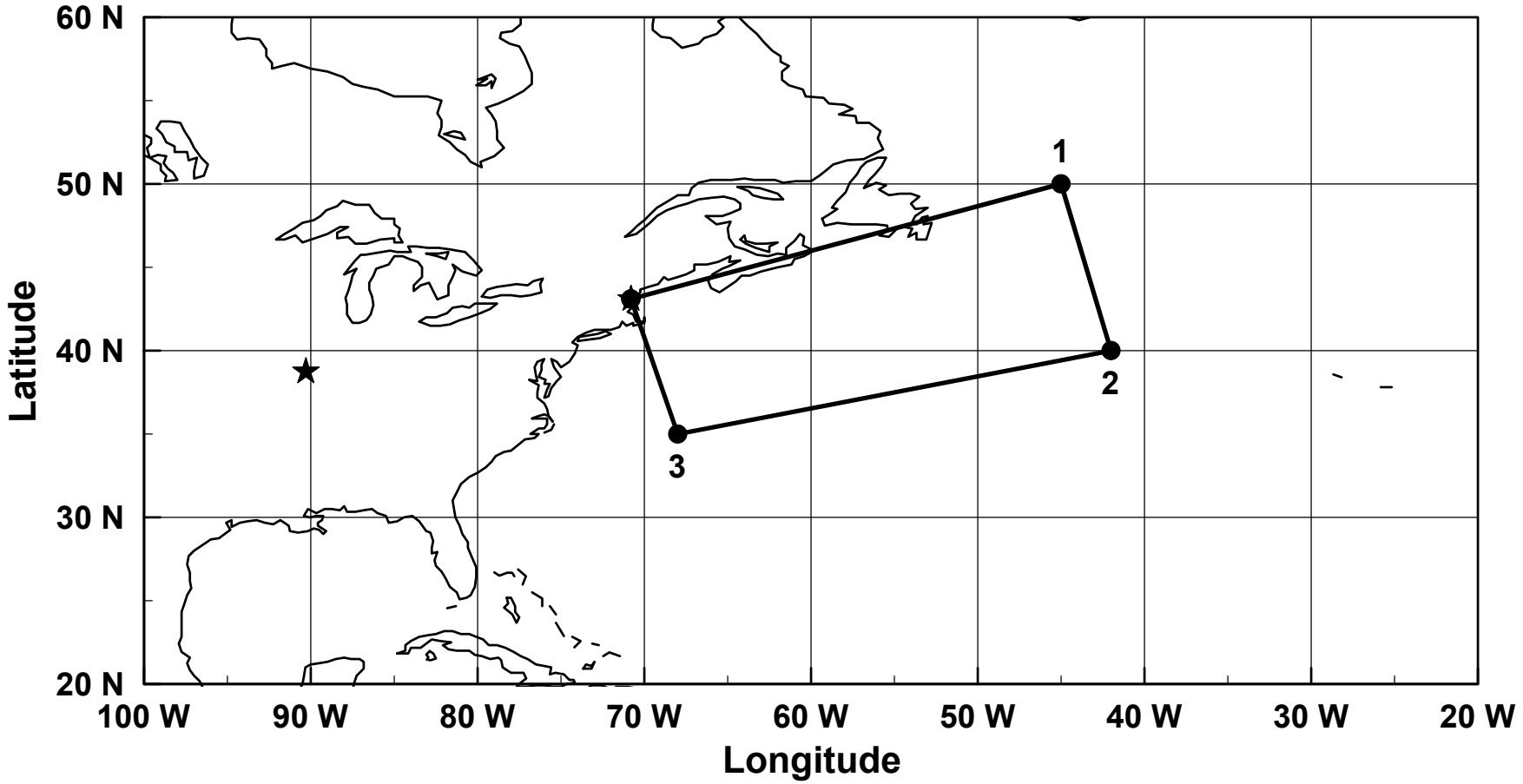
Flight 10:
Northeast Gradient and Transport: Sample the transport and accumulation of emissions throughout the northeast.

Relevant to (2) Transcontinental characterization, (3) BL characterization and venting, and (4) N. American outflow
Possible contribution to (1) Intercomparison, (6) Convective influence and (8) Satellite under-flight



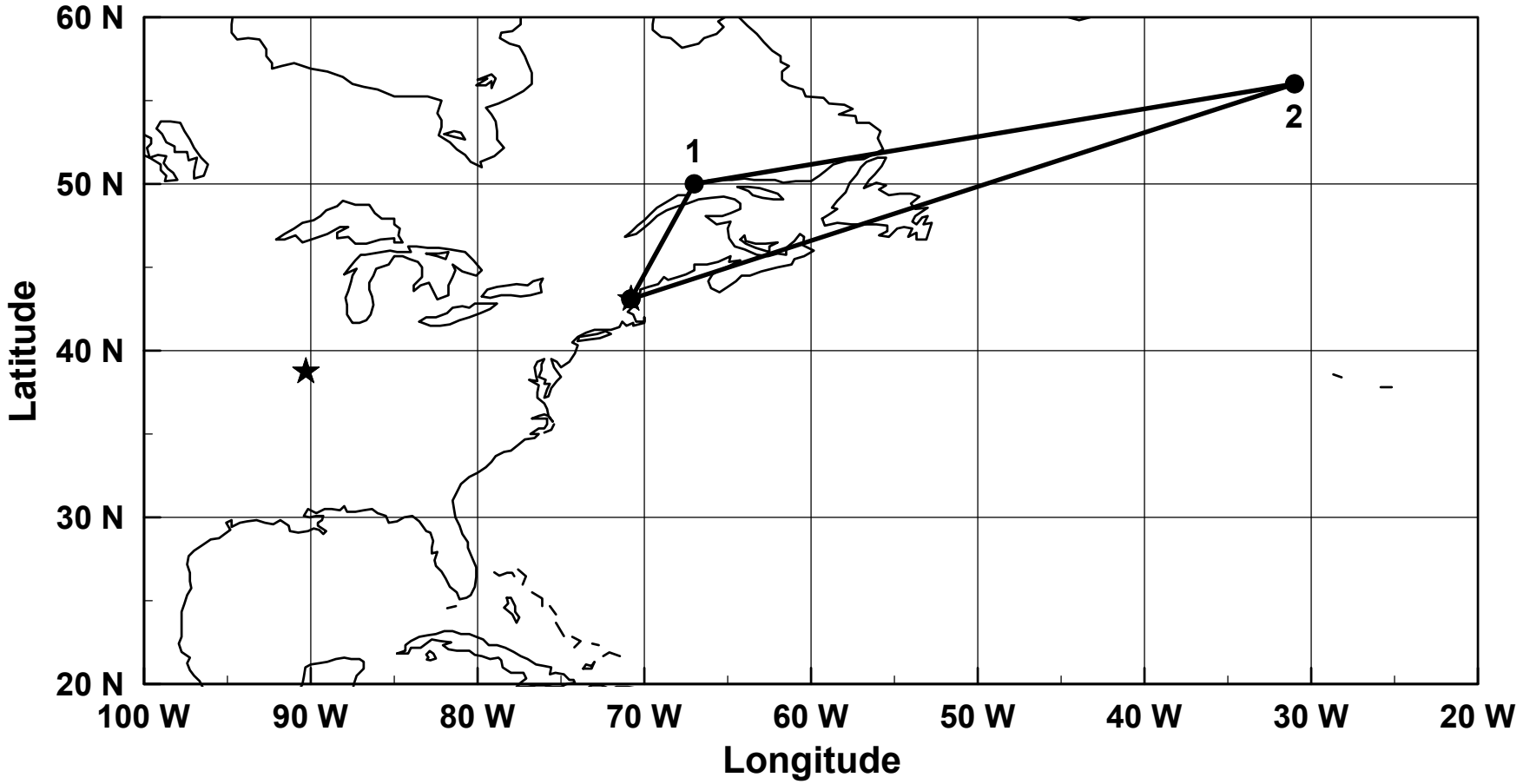
Flight 11:
N. Atlantic Survey: Sample longitudinal and latitudinal gradients in outflow.

Relevant to (4) N. American outflow and (5) Aging of outflow
Possible contribution to (1) Intercomparison and (8) Satellite under-flight



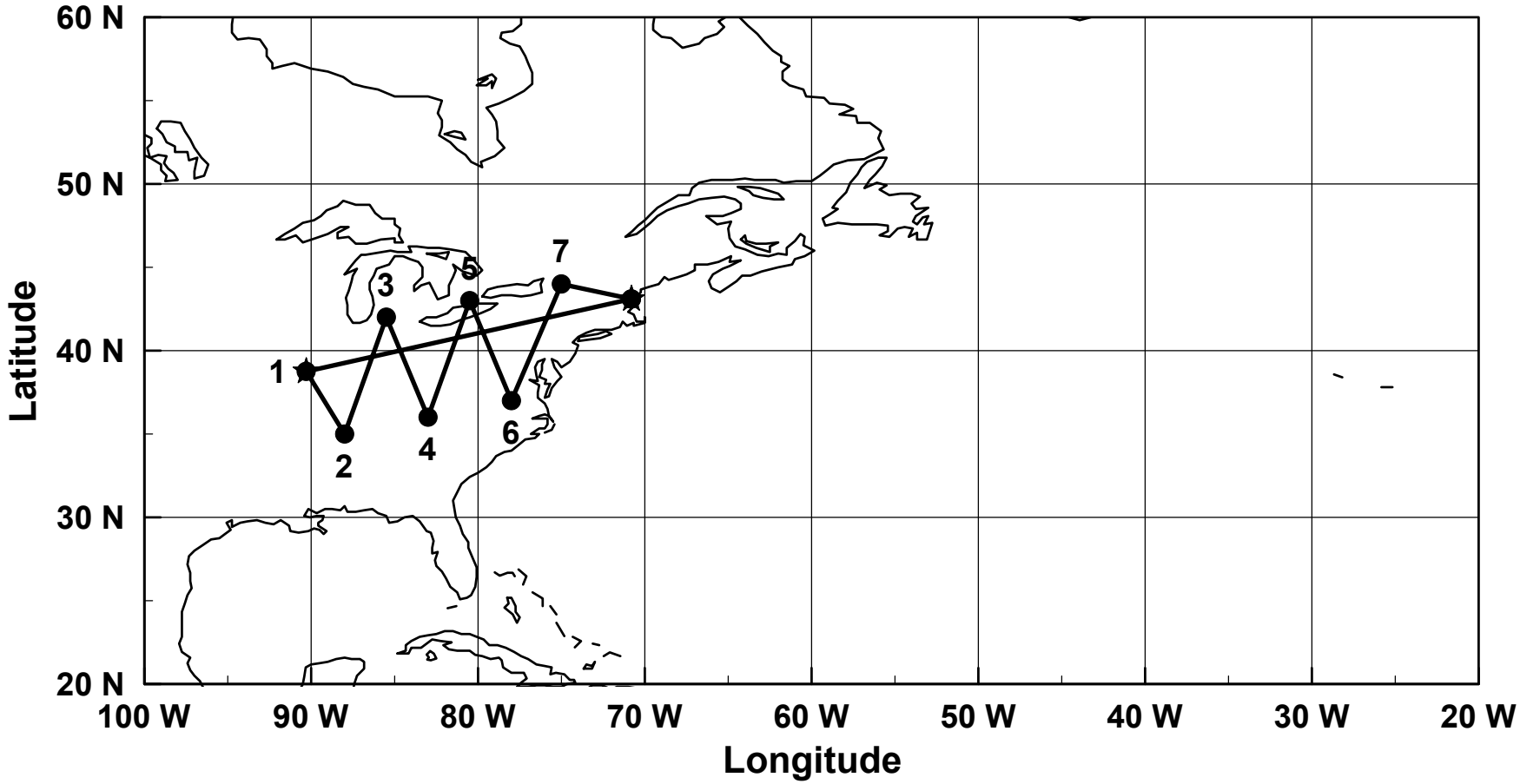
Flight 12:
NE Outflow: Sample outflow from NE to N. Atlantic.

Relevant to (4) N. American outflow and (5) Aging of outflow
Possible contribution to (1) Intercomparison and (8) Satellite under-flight



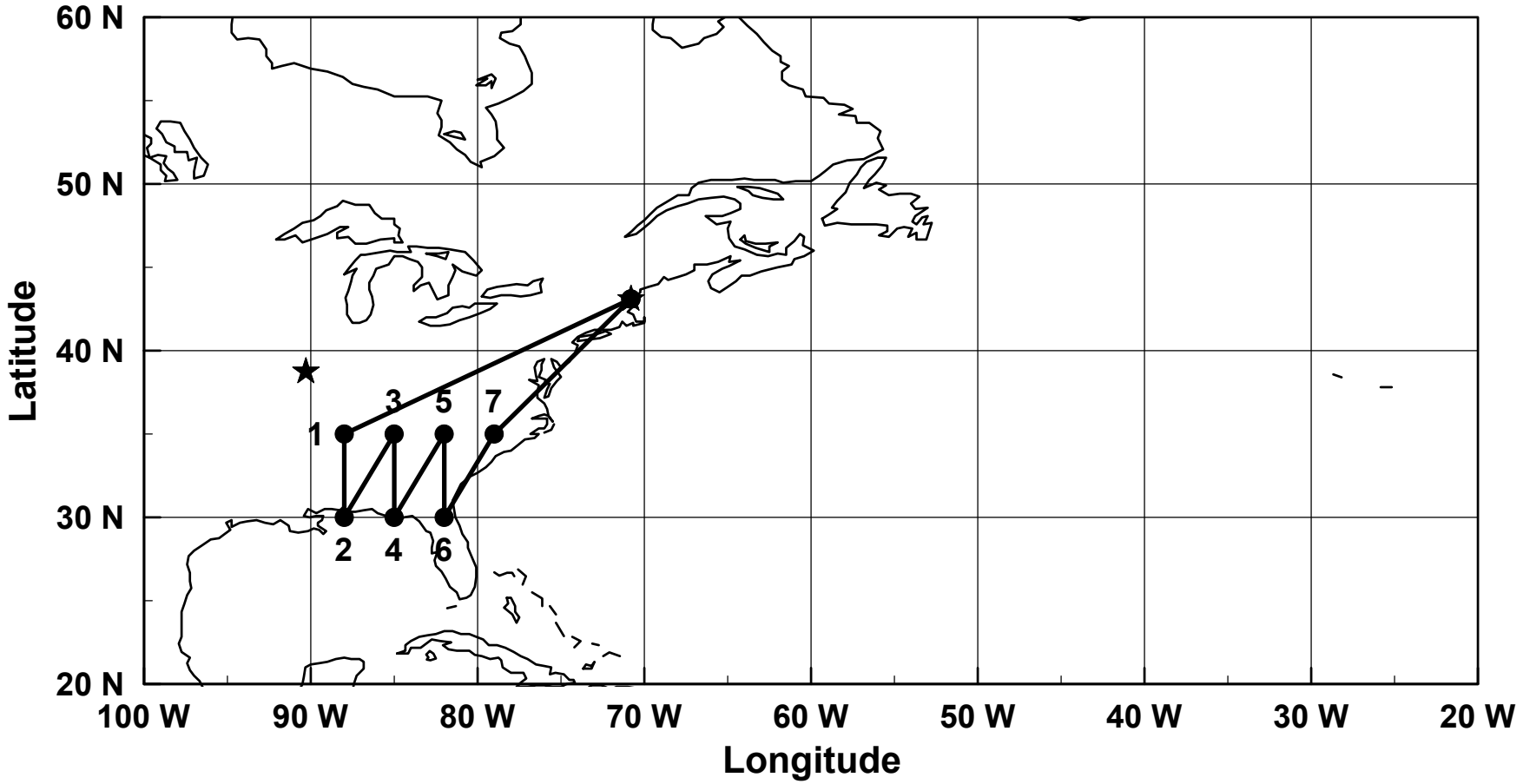
Flight 13:
Midwest-Northeast Transport: Sample the transport and accumulation of emissions between the Midwest and New England sites.

Relevant to (2) Transcontinental characterization, (3) BL characterization and venting, and (4) N. American outflow
Possible contribution to (6) Convective influence and (8) Satellite under-flight



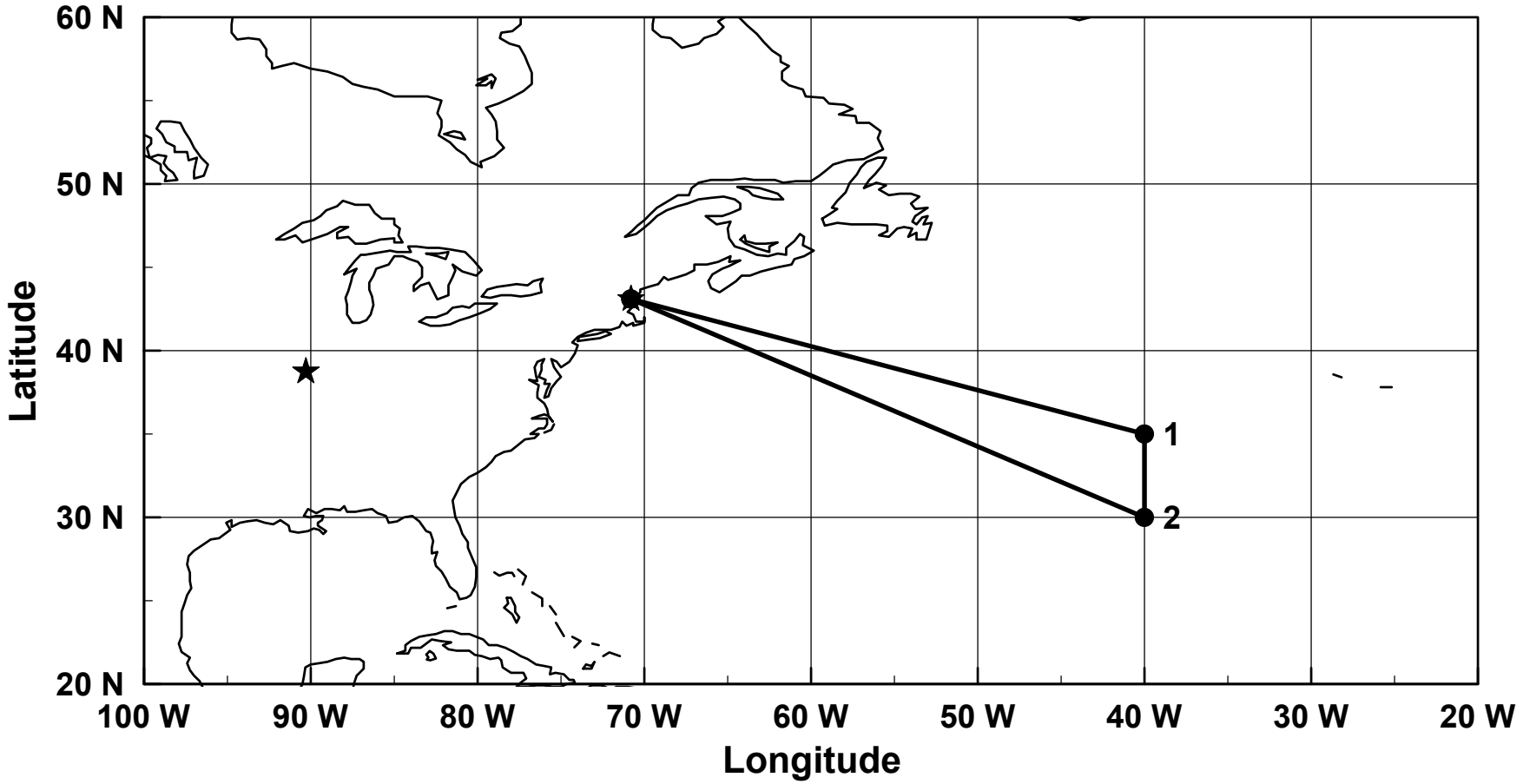
Flight 14:
Southeastern Survey: Sample gradients throughout the Southeastern U.S.

Relevant to (2) Transcontinental characterization and (3) BL characterization and venting
Possible contribution to (6) Convective influence and (8) Satellite under-flight



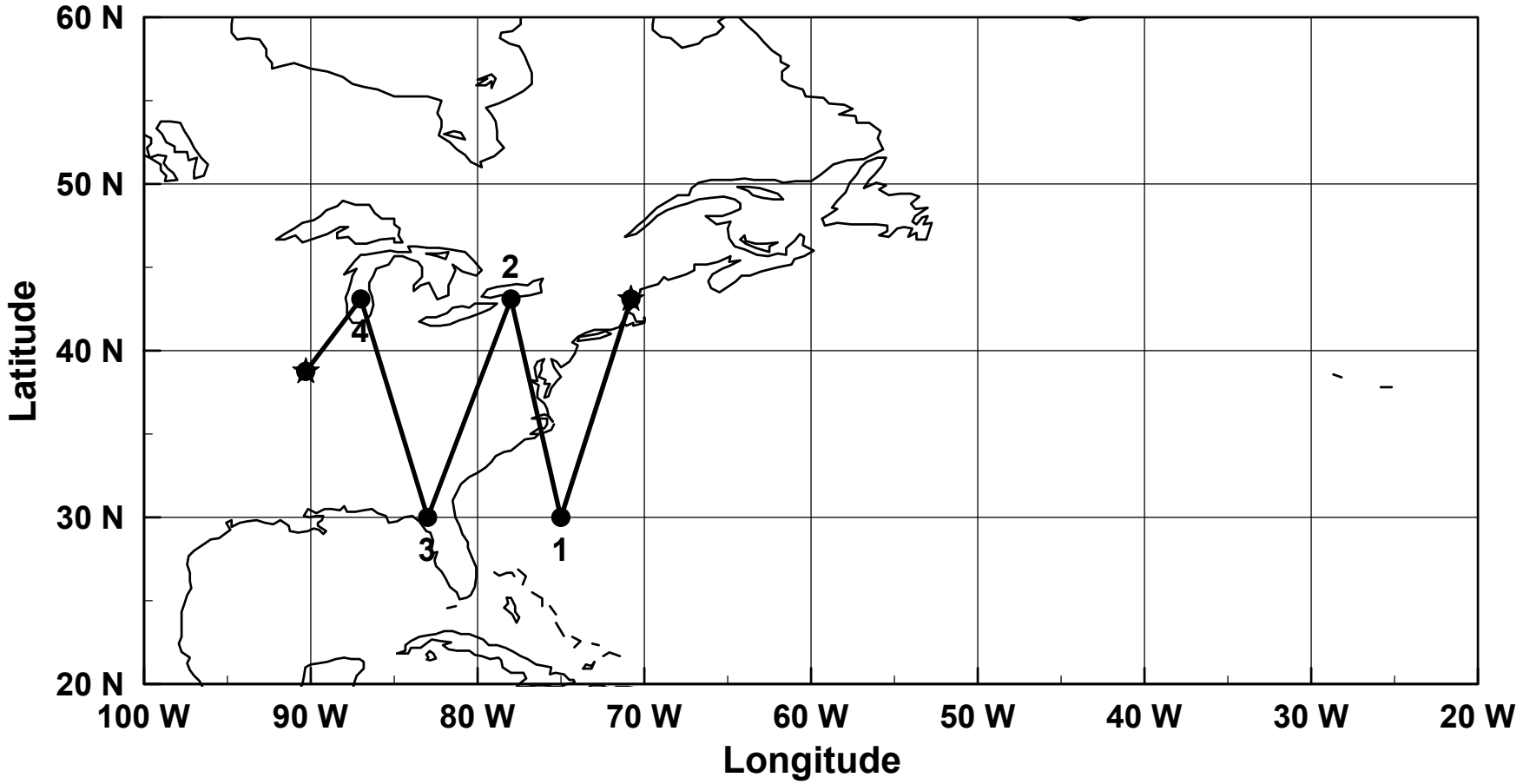
Flight 15:
Low-latitude Outflow and Recirculation: Sample outflow at lower latitudes and recirculation over the central North Atlantic

Relevant to (4) N. American outflow and (5) Aging of outflow
Possible contribution to (1) Intercomparison and (8) Satellite under-flight



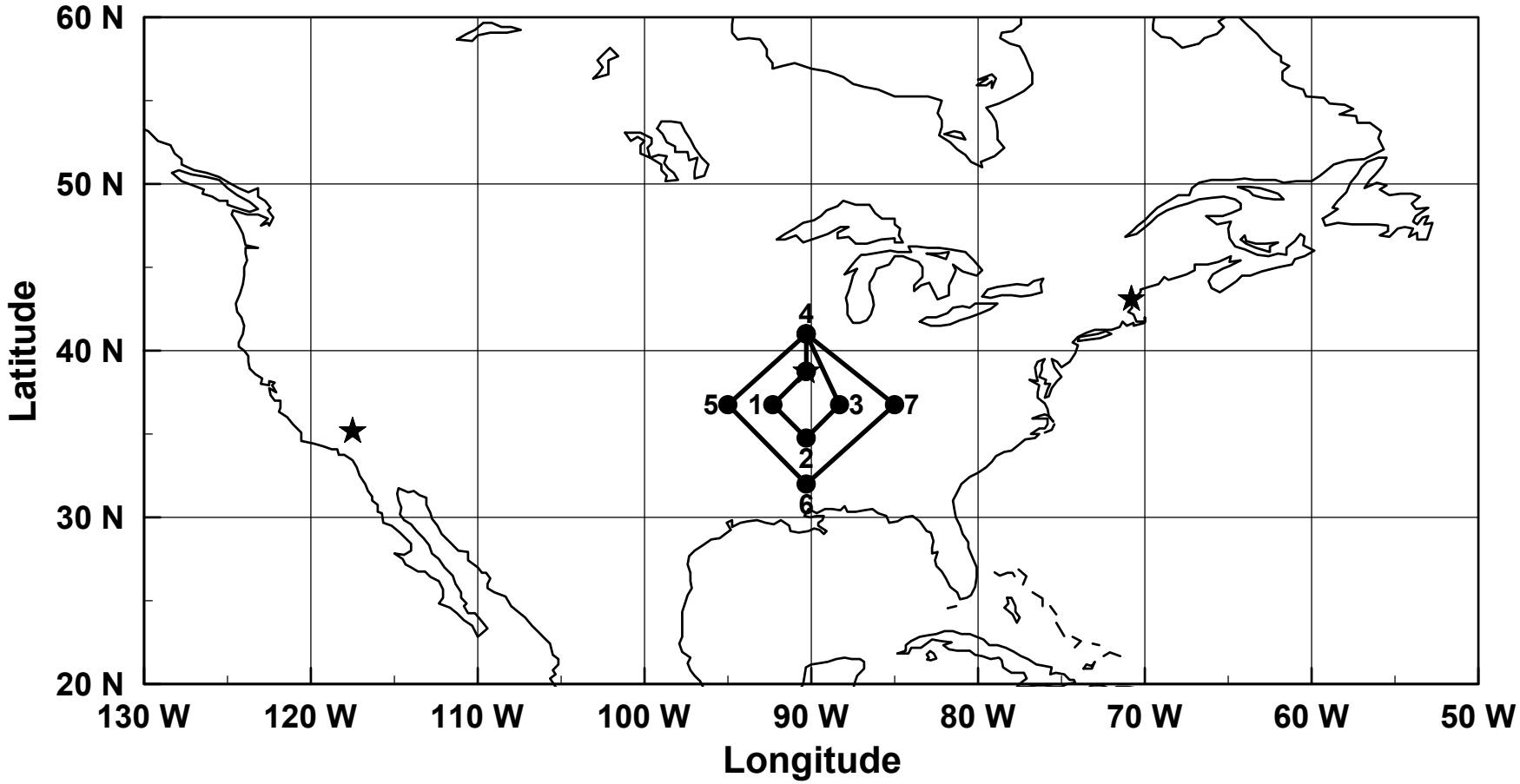
Flight 16:
Pease-St. Louis Transit: Sample latitudinal and longitudinal variability over the eastern U. S.

Relevant to (2) Transcontinental characterization and (3) BL characterization and venting
Possible contribution to (6) Convective influence and (8) Satellite under-flight



Flight 17:
Mesoscale Convective Influence: Sample region prior to onset of deep convection and sample upper troposphere upstream and downstream of mesoscale convective activity

Relevant to (3) BL characterization and venting and (6) Convective influence
Possible contribution to (8) Satellite under-flight



Flight 18:
St. Louis-Dryden Transit: Sample gradient between western U.S. sources and Pacific inflow.

Relevant to (2) Transcontinental characterization and (7) N. American Inflow
Possible contribution to (8) Satellite under-flight